A DESCRIPTION OF THE LARVA OF A SPECIES OF THE LINTNERI GROUP OF GLUPHISIA.

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GLUPHISIA SEVERA Hy. Edw.

1886-H. Edwards, Ent. amer., ii, 167.

Egg (?). Hemispherical, the base flat; smooth, slightly shiny whitish green, the micropyle round, small, black. Under a half inch objective it is seen to be covered with irregular flattened reticulations, not raised above the surface of the egg, much as in Cerura, but more irregular, ranging in shape from quadrilateral to hexagonal. Diameter 1.1 mm. Found on a poplar leaf, deposited singly. I am not sure that this egg belongs to this species, as it failed to hatch, but it was found with the larvae and probably belongs here.

First larval stage. Not observed.

Second stage. Head slightly bilobed, not shiny, pale green; mouth whitish; ocelli black; width 0.9 mm, Body smooth, slender, without humps or tubercles, uniform pale green, not shiny, with a faint yellow subdorsal line. No other markings.

Third stage. Only the cast head case was observed, the width of which was 1.45 mm.

Fourth stage. Width of head, 2.3 mm. Much as in the first part of the last stage. There is a moderately distinct, pale yellow, subdorsal line without other markings, or else traces of lateral and stigmatal yellowish lines, the former broken, the latter continuous, but faint. Spiracles small, faintly ocherous. As the stage advances the stigmatal line becomes the most distinct, the others becoming faint.

Fifth stage. Head very slightly bilobed, somewhat flattened in front, uniform pale, sublustrous green, mouth parts paler, jaws black; width 3.5 mm. Feet normal, all used in walking, concolorous with the body, the claspers whitish. Body long and slender,

noctuiform in appearance, without humps or tubercles; piliferous dots absent, the hairs being reduced to mere rudiments. Color uniformly non-lustrous pale green, semi-transparent, showing plainly the pulsations of the dorsal vessels. An obscure, pale yellow, stigmatal line. Spiracles dull ocher. The larva rests on a slight web on the back of the leaf, the head held out flat.

As the stage advances the markings become much more pronounced. The head is mottled with white, especially on each side of the clypeus: clypeus white centrally; a vellow line appears on the side of the head from the base of the antennae behind the ocelli, in line with the stigmatal band when the insect is in its normal position of rest. Stigmatal line distinct, pale vellow, bordered above, very narrowly, with crimson on the thoracic segments, and reaching nearly to the end of the anal plate. Dorsal region whitish green, becoming almost white; subventral region clear green, with vellow dots; spiracles orange, feet faintly tipped with vinous. There are faint traces of a yellowish subdorsal line, and one on each side of the dorsal vessel, but they become white and are seen as somewhat more distinct parts of the general whitish dorsal shading. Still latter, the rudimentary piliferous dots become surrounded with vellow. There are seven on each side above the stigmatal line, seven in the subventral space (where they appear more distinctly on account of the absence of white shading) and others on the venter of the legless segments.

Length of larva. 41 mm. at maturity.

Cocoon. Spun among leaves. It is composed of gummy silk, slight, but tough.

Pupa. Nearly cylindrical, rounded, no

cremaster; abdomen punctured, cases coarsely creased: color uniform dark brown, nearly black. Length 17 mm.; width 6 mm.

Food-plants. Poplar (Populus tremuloides and P. balsamifera). Larvae from Yosemite, Cal.

& moth. Allied to Gluphisia lintneri Grote and G. avimacula Hudson. Antennae lengthily bi-pectinated, the pectinations black, with dense, pale ciliae; shaft with whitish hairs. Thorax and abdomen densely clothed with dark gray hairs, black and white mixed, much darkest on thorax, the posterior edge of the collar defined by a paler line. Wings dark grav, nearly white scales intermixed with black scales and hairs, the white predominating in the median space. At the base of fore wings, on median vein, is a small ocherous dot, contiguous to, and forming part of a basal ocherous shading, enclosed in the space between median and internal veins, and bordered outwardly by an obscure, brownish-black, transverse line. Sub-basal space gray, clothed with black and white scales becoming lighter just before the t.a. line. Transverse anterior line distinct, velvety black, outwardly produced on subcostal, median and internal veins and inwardly arcuate across the cell and submedian interspace, most strongly defined at the internal margin. Median space broad, pale gray, with a central blackish shade-line in which is an obscure ocherous crescent at end of cell. Space below median vein next to t.a. line also shaded with ocherous, extending to the t.p. line along internal margin. The veins are slightly lined with black. Transverse posterior line whitish, dentate, preceded and followed by a black shade which is emphasized by the black markings on all the veins before the line, and fills in the subterminal space outside of it. Subterminal line outwardly arcuate to vein 4, thence again strongly arcuate to the interspace between veins 2 and 3 and thence straight to internal angle. It is shaded with ocherous yellow and bordered outwardly with dark brown;

but is narrowly broken on each vein by the gray ground color. Terminal space even, dark gray; fringes spotted with white and blackish brown. Hind wings thinly scaled. dark gray, paler at base, with two transverse pale lines defined by black scales and, on the internal angle, by three distinct black spots, the lower one of which is on the fringe. The outer line is faint, but is tinged with ocherous at the anal angle. Fringe as on fore wings. Beneath, blackish gray; a common extra mesial pale band, bordered inwardly with black. Hind wings whitish centrally. Expanse of wings, 41 mm.

Mr. Neumoegen has recently proposed the name Melia* (which, however, is preoccupied) for the linterni group of Gluphisia, describing as the type M. daubyi. This is the form of Gluphisia severa found in the Northwest, and I do not think it specifically distinct from that which occurs in the Sierra Nevada. I have taken it at Portland, Oregon, and have seen two examples in the collection of Mr. R. H. Stretch, presumably captured in Seattle, Wash.

A COCKS-COMB GALL ON RHUS MICROPHYLLA.

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On June 16, 1892, I found a gall of very striking appearance, from its deep scarlet color, on *Rhus microphylla*, near Mud Spring, which is on the road between Las Palomos and Cuchilla Negra, in Sierra county, N. Mex. The gall is of peculiar shape and resembles a cluster of many thickened leaflets massed together. At a casual glance, it might be mistaken for the fruit of the *Rhus*, which is in clusters and orange-colored but very different in form. The same gall was found next day, June 17, in the upper portion of the small cañon known as the Cañada Alamosa.

^{*} Can. ent. xxiv, 225.